

IN THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. - 10. (Canceled)

11. (Currently amended) A method of assigning resource units within a cell of a wireless time division duplex communication system, each resource unit is associated with a time slot and a code, the method comprising:

for selected ones of the cell's resource units, measuring a code interference level during that resource unit's time slot using that resource unit's code and determining whether that resource unit has an acceptable code interference level based on a comparison of that resource unit's measured code interference level with a threshold;

assigning resource units to communications out of the selected ones resource units having an acceptable code interference level ~~The method of claim 7 wherein the assigning resource units is performed~~ by assigning multiple resource units of a user equipment to consecutive time ~~[[slots.]]~~ slots; and

producing a preference matrix indicating which of the selected ones resource units are eliminated.

12. (Currently amended) A method of assigning resource units within a cell of a wireless time division duplex communication system, each resource unit is associated with a time slot and a code, the method comprising:

for selected ones of the cell's resource units, measuring a code interference level during that resource unit's time slot using that resource unit's code and determining whether that resource unit has an acceptable code interference level based on a comparison of that resource unit's measured code interference level with a threshold;

assigning resource units to communications out of the selected ones resource units having an acceptable code interference level ~~The method of claim 7 wherein the assigning resource units is performed~~ by assigning multiple resource units of a user equipment to a same time ~~[[slot.]]~~ slot; and

producing a preference matrix indicating which of the selected ones resource units are eliminated.

13. (Original) A wireless time division duplex communication system using code division multiple access comprising:

a base station comprising:

a resource unit assignment device for receiving code interference levels for resource units, producing a preference matrix using the received code

interference levels, and assigning resource units to communications using the preference matrix; and

a user equipment comprising:

a code power interference measurement device for measuring code interference levels of a resource unit using that unit's code during that unit's time slot; and

a resource unit assignment device for outputting code power interference measurements for use by the base station and assigning resource units to communications using the resource units assigned by the base station.

14. (Original) The system of claim 13 wherein the base station further comprises a code power interference measurement device for measuring code interference levels of a resource unit using that unit's code during that unit's time slot.

15. (Original) The system of claim 13 wherein the user equipment further comprises a time slot interference measurement device for measuring an interference level of a time slot and the resource unit assignment device sending the time slot interference measurements for use by the base station.

16. (Original) The system of claim 14 wherein the base station further comprises a time slot interference measurement device for measuring an interference level of a time slot.

17. (Original) The system of claim 13 wherein the user equipment measures code interference levels on a periodic basis.

18. (Original) The system of claim 13 wherein the user equipment measures code interference levels when instructed by the base station.

19. (Original) The system of claim 15 wherein the base station resource unit assignment device eliminates ones of the selected time slots having a measured interference exceeding a threshold.

20. (Original) The system of claim 19 wherein the preference matrix indicates eliminated time slots.

21. (Original) The system of claim 13 wherein the assigning resource units is performed by first assigning a resource unit in the preference matrix with a lowest interference level.

Applicant: Pan et al.
Application No.: 09/901,289

22. (Original) The system of claim 13 wherein the assigning resource units is performed by assigning multiple resource units of a user equipment to consecutive time slots.

23. (Original) The system of claim 13 wherein the assigning resource units is performed by assigning multiple resource units of a user equipment to a same time slot.

24. - 46. (Canceled)